AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. **(Original)** A catalyst which comprises the following protein (A) or (B) as an active ingredient and is capable of specifically cleaving one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D:

(A) a protein which comprises the amino acid sequence represented by SEQ ID NO: 2;

(B) a protein which comprises an amino acid sequence having deletion, substitution, insertion or transposition of one or several amino acids in the amino acid sequence represented by SEQ ID NO: 2, and has activity capable of specifically cleaving one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D.

2. **(Original)** The catalyst according to claim 1, which is not capable of cleaving dermatan sulfate, keratan sulfate, and chondroitin having an average molecular weight of 7,000.

3. **(Original)** A cleavage agent which comprises the following protein (A) or (B) as an active ingredient and is specific for cleavage of one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D:

(A) a protein which comprises the amino acid sequence represented by SEQ ID NO: 2;

(B) a protein which comprises an amino acid sequence having deletion, substitution, insertion or transposition of one or several amino acids in the amino acid sequence represented by SEQ ID NO: 2, and has activity capable of specifically cleaving one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D.

4. **(Original)** The cleavage agent according to claim 3, which is not capable of cleaving dermatan sulfate, keratan sulfate, and chondroitin having an average molecular weight of 7,000.

5. **(Original)** A medicament which comprises the following protein (A) or (B) as an active ingredient and is used for specifically cleaving one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D which are present in a living body tissue:

(A) a protein which comprises the amino acid sequence represented by SEQ ID NO: 2;

(B) a protein which comprises an amino acid sequence having deletion, substitution, insertion or transposition of one or several amino acids in the amino acid sequence represented by SEQ ID NO: 2, and has activity capable of specifically cleaving one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D.

6. **(Original)** The medicament according to claim 5, which is not capable of cleaving dermatan sulfate, keratan sulfate, and chondroitin having an average molecular weight of 7,000.

7. **(Currently Amended)** The medicament according to claim 5 ~~or 6~~, wherein the living body tissue is nucleus pulposus.

8. **(Currently Amended)** The medicament according to ~~any one of~~ claims 5 ~~to 7~~, which is an agent for treating disc herniation.

9. **(Original)** A method for specifically cleaving one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D, which comprises reacting the following protein (A) or (B) with the sugar chain(s):

(A) a protein which comprises the amino acid sequence represented by SEQ ID NO: 2;

(B) a protein which comprises an amino acid sequence having deletion, substitution, insertion or transposition of one or several amino acids in the amino acid sequence represented by SEQ ID NO: 2, and has activity capable of specifically cleaving one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D.

10. **(Original)** The method according to claim 9, wherein the protein is not capable of cleaving dermatan sulfate, keratan sulfate, and chondroitin having an average molecular weight of 7,000.

11. **(Original)** A method for specifically producing a sugar chain(s) having a decreased molecular weight, which comprises reacting the following protein (A) or (B) with one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D:

(A) a protein which comprises the amino acid sequence represented by SEQ ID NO: 2;

(B) a protein which comprises an amino acid sequence having deletion, substitution, insertion or transposition of one or several amino acids in the amino acid sequence represented by SEQ ID NO: 2, and has activity capable of specifically cleaving one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D.

12. **(Original)** The method according to claim 11, wherein dermatan sulfate, keratan sulfate and chondroitin having a decreased molecular weight are not produced.

13. **(Currently Amended)** A method for producing the catalyst according to claim 1 ~~or 2~~, which comprises expressing a protein using a DNA comprising the following (a) or (b); and collecting the expressed protein:

(a) a DNA encoding a protein which consists of the amino acid sequence represented by SEQ ID NO: 2;

(b) a DNA encoding a protein which consists of an amino acid sequence having deletion, substitution, insertion or transposition of one or several amino acids in the amino acid sequence represented by SEQ ID NO: 2, and has activity capable of specifically cleaving one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D.

14. **(Currently Amended)** A method for producing the cleavage agent according to claim 3 ~~or 4~~, which comprises expressing a protein using a DNA comprising the following (a) or (b); and collecting the expressed protein:

(a) a DNA encoding a protein which consists of the amino acid sequence represented by SEQ ID NO: 2;

(b) a DNA encoding a protein which consists of an amino acid sequence having deletion, substitution, insertion or transposition of one or several amino acids in the amino acid sequence represented by SEQ ID NO: 2, and has activity capable of specifically cleaving one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D.

15. **(Currently Amended)** A method for producing the medicament according to ~~any one of~~ claims 5 ~~to 8~~, which comprises expressing a protein using a DNA comprising the following (a) or (b); and collecting the expressed protein:

(a) a DNA encoding a protein which consists of the amino acid sequence represented by SEQ ID NO: 2;

(b) a DNA encoding a protein which consists of an amino acid sequence having deletion, substitution, insertion or transposition of one or several amino acids in the amino acid sequence represented by SEQ ID NO: 2, and has activity capable of specifically cleaving one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D.

16. **(Original)** A fusion protein which comprises the following protein (A) or (B) with other peptide:

(A) a protein which comprises the amino acid sequence represented by SEQ ID NO: 2;

(B) a protein which comprises an amino acid sequence having deletion, substitution, insertion or transposition of one or several amino acids in the amino acid sequence represented by SEQ ID NO: 2, and has activity capable of specifically cleaving one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D.

17. **(Original)** The fusion protein according to claim 16, which is not capable of cleaving dermatan sulfate, keratan sulfate, and chondroitin having an average molecular weight of 7,000.

18. **(Original)** A method for treating a disease in which one sugar chain or two or more sugar chains selected from the group consisting of hyaluronic acid, chondroitin sulfate A, chondroitin sulfate C and chondroitin sulfate D is/are excessively present in a living body tissue, which comprises administering the medicament according to claim 5.

19. **(Original)** The method according to claim 18, wherein the medicament is not capable of cleaving dermatan sulfate, keratan sulfate, and chondroitin having an average molecular weight of 7,000.

20. **(Original)** The method according to claim 18, wherein the living body tissue is nucleus pulposus.

21. **(Original)** The method according to claim 18, wherein the disease is disc herniation.

Claims 22-27. **(Cancelled)**